Art Unit 2164   10/539851   25 May 2009

REMARKS & ARGUEMENTS

1. Replacement sheets for drawings 6-12 have been provided as requested.

2. The grammatical issues of the claims have been addressed; "prioritize" and prioritizing " are both spelt with a "z" according to Merriam-Webster dictionary found at *http://jaguar.eb.com/dictionary/prioritize*. Claims 12 & 20 have been accordingly modified for consistency. A period has been inserted at the end of claim 10 as needed.

3. The Application has been reviewed in the light of the Bilinski decision of the United States Federal Court which occurred only recency. It is respectfully submitted all the claims pertain to transforming a particular article into a different state or thing, namely search results into hierarchical reports. For example, in claim 1 the transformation involves filtering, extracting, storing and displaying in output data hierarchies. And in claim 14 for example, it additionally involves compiling, presenting, defining, transforming.

4. The double-patenting problem is acknowledged, and claim 16 has been cancelled by the claim listing in this reply.

5. The Examiner's U.S.C. 35 103(a) rejections have been carefully considered. It is noted Alder's *"Method of Analysing and Recording Innovations"* (U.S. 2003/0033295) and Szabo's *"Computer graphic display visualization system and method"* (U.S. 2005/0165766) are cited in combination in support of a all rejections made against every claim. In reply, the inventor relies on the principles affirmed in the recent KSR U.S. Supreme Court case and respectfully submits the citations are not obvious to combine.

   In summary, this is because Alder teaches away from the present invention and Szabo

5 of 12

teaches away from both the present invention and also Alder. Moreover, both Alder and Szabo rely on extensive knowledge of a user's intentions to help weigh search results. The present invention on the other hand, extracts locational information found in results. This provides the advantage of potentially allowing universal use by billions of anonymous users of existing search services. Furthermore, as will be shown below, even if Alder and Szabo were obvious to combine, they would not teach the present invention.

6. Turning firstly Alder, paragraph 83 teaches a "relevancy filter" which evaluates the user's intentions as expressed in claims, concept summaries and countries in which the user expresses an interest. Without this intimate knowledge from the user, the "relevancy filter" would not know what to do. The present invention is not so limited as to require this. Furthermore, paragraphs 101-102 teach away from the present invention by mandating that search results be presented in tabular not hierarchical formats. And where there is opportunity to create an output hierarchy, such as with dependent claims in relation to their parents, Alder in paragraphs 108-110 expressly strips away the hierarchical information to conform to a fixed tabular presentation instead. Alder therefore shouldn't be combined to render the present invention obvious, since the present claims rely on one or more output hierarchies or a hierarchical data modeller – an approach which Alder rejects.

7. However even if points 5 & 6 above were not the case, paragraph 74 of the citation states that parameters for the citation's relevancy filter are supplied by the end user: The present invention on the other hand, teaches the opposite, with the extraction of locational information from the filtered search results.

8. Turning now to the Szabo citation, paragraphs 10-12 expressly teach away from the relevancy filters central to Alder's invention. Szabo envisages in paragraphs 92-93 that end-user affinities can be understood through "collaborative filtering" instead, as described in paragraph 89; this somehow matches advertisers to potential buyers, after an object is selected by the end user. Szarbo's fuzzy relevancy-free system is therefore

at odds with the relevancy-dependant bright-line guidance of Alder's patent validity and infringement system. It is therefore respectfully submitted that a combination of these would be un-enabled at best.

9. Szabo also teaches away from the present invention as well. In summarizing his invention, Szarbo in paragraph 91 dismisses file/folder presentation as could be supported by the present invention, to advocate a mapping process instead. While this may be relevant to a product sales system such as the citation seems to be [see para 96], it's not a good way to deal with many other search results. For example, it is clear such mapped trees as shown in figure 1A and 1D in the citation, cannot contain results within output hierarchies such as shown in figure 6 of the present drawings. In fact figure 1A of the citation shows the opposite, with an input selection hierarchy generating search results which are presented as a simple numbered list contrary to the teaching of the present claims. Moreover, the citation's paragraph 112 teaches away in as much as hierarchical search result categorization, when available, is based upon "user-specific data " to define relationships, not locational information extracted from search results, as with the present invention.

10. For the reasons given in points 5 to 9 above, the citations in effect teach away from each other and the present invention. Therefore in relation to the Examiner's item 12 and the claims thereof, it is submitted they are not obvious to combine to render any of the present claims as obvious. Nevertheless, to be especially clear, it is proposed to amend claim 1 by the listing in this reply. The phrase "output hierarchy" now reads "output data hierarchy", as supported in Figure 1 of the present drawings.

11. In relation to the Examiner's item 13 and the claims thereof, even if the reasoning in items 5-8 above concerning Alder and Szabo were not the case, it is submitted adding Gardner's "Ontology-based information management system and method" into the mix would not be obvious. This is because it too teaches away from the present invention. As per paragraph 17 of the citation, Gardner's object is to create "semantic maps". This complex system is unlike the present invention's "storing the locational

information in one or more output data hierarchies". The use of ontology instead means Gardner's basic concept is to deduce a reporting structure using syntactic and semantic mapping between entities, which is discovered using concept-based text searching, as paragraph 17 states. These syntaxes and semantics are disclosed as the nouns and verbs within searched content. Gardner therefore teaches away from the present invention's reliance on loctional information, which is about where content is located or in a given taxonomy. As paragraph 13 of the present invention states, this may involve analysing a URL of each search result, analysing a file system location, or analysing a taxonomy of the search result in a taxonomy. By comparison the savings in processing power are enormous; and the most readily understandable context is often the selected place in which information has already been put by its publisher or owner anyway.

12. However, even if Gardner were combinable with Alder and Szarbo, it would not equate to the present invention in any case. This is because similar to the other citations, Gardner seeks detailed knowledge about the end-user to better weigh results using "context networks" - see paragraph 53 and figures 2 &5. The present invention on the other hand, is not so limited as to require this, potentially allowing billions of anonymous users to benefit from the present invention using existing search engines. In line with the principles laid down in the KSR case, it is respectfully submitted Gardner teaches away from the present invention and does not allow the same end user benefits. Therefore a combination involving Gardner should not be viewed as obvious.

13. It is also respectfully submitted that even if items 5-9, 11 & 12 above were not the case, the de-duplication in Gardner only relates to a list of ontology terms, whereas the present invention relates to comparing search results from one or more search engines. Therefore the present invention would not be disclosed even if Alder, Szarbo and Gardner were somehow combinable.

14. In relation to the Examiner's item 14 and the claims thereof, the present inventor

8 of 12

Art Unit 2164   10/539851   25 May 2009

respectfully submits Ryu's *"Web Search Function to Search Information From a Specific Location"* (6,321,227) is not obvious to combine to produce the present invention – even if Alder and Szarbo were combinable. This is because Ryu teaches away by demanding that end users should specify any required locational information themselves while forming their search query *before* the search is executed (Abstract, col 2 lines 4-7). The present invention on the other hand, extracts locational information for the end user *from the search results*. Once again, the cited system requires knowledge from end users to operate, which is not necessary for the present invention, which can work with existing search services. It is very respectfully submitted that the teachings of U.S. Supreme Court's KSR decision indicate Ryu is not obvious to combinable.

15. Even if the reasons for points 5-9 & 14 above were not the case, the cited invention if combinable with Alder and Szarbo would nevertheless not disclose the present invention. This is because Ryu uses locational information to confine results to referencing that location. The citation does not present multiple locations to end users by outputting results in a hierarchy as the present invention does. Consequently it does not store such results that way either. In column 3 lines 45 to 47, a hierarchical structure is only used as a means of selecting locations already known to the invention for inclusion in the search. Column 4 lines 6-13 and claim 6 discloses search results are then simply transmitted to an end user if they match, or not transmitted if they don't, or transmitted with extra details if the system can't decide. As such, the citation should not be regarded as a search result reporter like the present invention, but a new kind of query engine. The indexing function referred to in column 3 line 5 attests to this distinction. Therefore the present invention cannot be disclosed by Ryu even if combined with the other citations.

16. In relation to the Examiner's item 15 and the claims thereof, even if the reasoning behind the above points 5-9 concerning Alder and Szabo were not the case, it is submitted adding Luke's *"Information Component Based Data Storage and Management"* (7,130,867) would still not be an obvious thing to do. This is because

although not exactly the same idea, Luke nevertheless teaches away by only
implementing analysis of a search result's file system location as a file system add-in
or as part of the file system itself (see Abstract). The present invention on the other
hand, holds that such analysis should be implemented as part of a search result
reporter. This is because a search result report may involve one or more search
engines, and consequently, one or more file systems. There can be no guarantee that
Luke's system will be found in every one of them, or even any of them; nor that all
such file systems are synchronised across every network even if Luke's system is
available though out them all. Suffice to say the present invention offers superior
utility by incorporating functionality at the search result level, for it is not uncommon
for end-users to use more than one search engine to which Luke has no real answer.
Therefore in the light of KSR previously mentioned, it is submitted Luke's invention,
could not be combined to render the present invention obvious.

17. In relation to the Examiner's item 16 and the claims thereof, it is respectfully
submitted points 5-9 above concerning Alder and Szabo preclude such a combination;
but even if this were not the case, Makus' *"Displaying hierarchical relationship of
data accessed via subject index"* (2002/0059210) would not be obvious to combine
either. This is because Makus teaches away by requiring "hierarchically organized
data" to already be available to start with (Abstract, col 2 line 55, col 3 line 39, fig 10).
The present invention on the other hand, can create hierarchical data outputs from
retrieved search results which are most often received in list form.

18. Moreover even if points 5-9 and 17 above are not the case, a combination with Markus
would not disclose the present invention. This is because the citation only displays
"hierarchical levels" (Abstract, figure 3), and not displaying or compiling the search
results within output hierarchies - see figure 6 of the present drawings for example. So
instead of displaying or compiling the search results within output hierarchies,
paragraph 67 states users "walk through the tree" during a hierarchical search (as
figure 3 shows). The advantage of the present invention however, is that complete or
larger hierarchies can be collapsed out of the way in an instant, or instantly viewed

later with a single click. This means although some features may appear similar, the present invention in fact holds great novelty over Makus, plus is usable in conjunction with existing search systems. Therefore in the light of KSR previously mentioned, it is respectfully submitted Makus's invention, should not be combined as obvious.

19. In relation to the Examiner's item 17 and the claims thereof, the present inventor respectfully submits Iron's *"Method of graphically presenting network information"* (2001/0035885) is not obvious to combine to produce the present invention – even if Alder and Szabo were combinable. This is because it teaches away, in producing a "graphical state map" (Abstract, paragraphs 6, 61-62 and figures 2-6) rather than search results in output hierarchies as the present invention does. Moreover Iron also teaches away from Szabo, by citing relevancy as its main search factor in paragraph 62; while Szabo in paragraphs 10-12 teaches away from such relevancy factors. Therefore once again, the KSR ruling would tend against any combination using Iron in this case.

20. Even if the reasoning of points 5-9 & 19 above were not the case, the cited invention if combinable with Alder and Szarbo would still not disclose the present invention. This is because Iron's paragraph 66 only records "the amount of relation between the search results and the last site visited by the user". This is only an indicator of possible search result relevance. It does not allow end user notes and discussions to search results and/ or hierarchies – see for example figure 9 of the present invention.

21. In relation to the Examiner's item 18 and the claims thereof, the present inventor respectfully submits Matthews' *"Cache Memory Hierarchy Having a Large Write Through First Level that Allocates for CPU Read Misses Only and a Small Write Back Second Level That Allocates For CPU Write Misses Only "* (5,359,723) is not obvious to combine to produce the present invention – even if Alder and Szabo were combinable. This is because the present invention is not involved with helping CPU timing problems associated with system board memory. It does appear this citation cannot be combined with Alder and Szarbo because it is of a different field.

22. Even if points 5-9 & 14 above were not the case, the cited invention if combinable with Alder and Szarbo would not disclose the present invention. This is not least because Szabo at paragraph 112 does not disclose a hierarchical data modeller for extracting location and meta information, but rather it teaches away by having end users manually model the data. This is achieved undrr the citation through user defined schema devised after a user has characterised a group of documents by reading one of them. The present invention on the other hand, requires no such end user intervention, relying instead on its hierarchical data modeller. The present invention's teaching away from Szabo renders it useful with potentially billions of users of existing search engines, indicating the cited combination isn't obvious in the light of KSR.

23. In conclusion, having carefully pondered all the Examiner's replies, the Inventor respectfully submits the present Application has substantial novelty and inventiveness over all the prior art. Allowance of the claims is therefore courteously sought.